Published before May 2005
Terms used: **discover neighbor node invite cluster**

Found **5** of **170,526**

Sort results by relevance

Display results expanded form

Save results to a Binder

Search Tips

Open results in a new window

Try an Advanced Search

Try this search in The ACM Guide

Results 1 - 5 of 5

Relevance scale

1 Comparative performance evaluation of scatternet formation protocols for networks of bluetooth devices

Stefano Basagni, Raffaele Bruno, Gabriele Mambrini, Chiara Petrioli

March 2004 **Wireless Networks**, Volume 10 Issue 2

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(375.40 KB) Additional Information: full citation, abstract, references, citings, index terms, review

This paper describes the results of the first ns2-based comparative performance evaluation among four major solutions presented in the literature for forming multi-hop networks of Bluetooth devices (*scatternet formation*). The four protocols considered in this paper are *BlueTrees* [1], *BlueStars* [2], *BlueNet* [3] and the protocol presented in [4] which proposes geometric techniques for topology reduction combined with cluster-based scatternet formation. We implemented th ...

**Keywords**: bluetooth, performance evaluation, scatternet formation, wireless networks

2 Design and performance analysis of a proxy-based indirect routing scheme in ad hoc wireless networks

Wook Choi, Sajal K. Das

October 2003 **Mobile Networks and Applications**, Volume 8 Issue 5

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(376.01 KB) Additional Information: full citation, abstract, references, citings, index terms

The majority of existing ad hoc network routing protocols has a tendency to use the shortest single path from a source to a destination. However, in constantly changing topologies such as those in mobile ad hoc wireless networks, the shortest single path is not only unreliable for reachability but also unsuitable for traffic load equilibrium. In order to improve routing performance and make optimum use of the limited resources, the congestion must first be relieved as much as possible and the ro ...

**Keywords**: ad hoc wireless networks, alternative path, congestion control, load balancing, performance study, proxy nodes, routing

3 The Web Service Discovery Architecture

Wolfgang Hoschek

November 2002 **Proceedings of the 2002 ACM/IEEE conference on Supercomputing Supercomputing '02**

**Publisher:** IEEE Computer Society Press

Full text available: pdf(282.28 KB) Additional Information: full citation, abstract, references, citings, index terms

In this paper, we propose the Web Service Discovery Architecture (WSDA). At runtime, Grid applications can use this architecture to discover and adapt to remote services. WSDA promotes an interoperable web service discovery layer by defining appropriate services, interfaces, operations and protocol bindings, based on industry standards. It is unified because it subsumes an array of disparate concepts, interfaces and protocols under a single semi-transparent umbrella. It is modular because it def ...

4 Efficient and robust protocols for local detection and propagation in smart dust networks

Ioannis Chatzigiannakis, Sotiris Nikoletseas, Paul G. Spirakis
February 2005 **Mobile Networks and Applications**, Volume 10 Issue 1-2

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(370.63 KB) Additional Information: full citation, abstract, references, citings, index terms

Smart Dust is a set of a vast number of ultra-small fully autonomous computing and communication devices, with very restricted energy and computing capabilities, that co-operate to quickly and efficiently accomplish a large sensing task. Smart Dust can be very useful in practice, i.e., in the local detection of a remote crucial event and the propagation of data reporting its realization. In this work we make an effort towards the research on smart dust from an algorithmic point of view. We first ...

**Keywords**: algorithms, data propagation, simulation, stochastic processes, wireless sensor networks

5 GPSR: greedy perimeter stateless routing for wireless networks

Brad Karp, H. T. Kung
August 2000 **Proceedings of the 6th annual international conference on Mobile computing and networking MobiCom '00**

**Publisher:** ACM Press

Full text available: pdf(1.41 MB) Additional Information: full citation, abstract, references, citings

We present Greedy Perimeter Stateless Routing (GPSR), a novel routing protocol for wireless datagram networks that uses the positions of routers and a packet's destination to make packet forwarding decisions. GPSR makes greedy forwarding decisions using only information about a router's immediate neighbors in the network topology. When a packet reaches a region where greedy forwarding is impossible, the algorithm recovers by routing around the perim ...

Results 1 - 5 of 5

Terms used: **discover neighbor node** Found **3** of **215,186**

Sort results by relevance

Display results expanded form

Save results to a Binder

Search Tips

Open results in a new window

Try an Advanced Search

Try this search in The ACM Guide

Results 1 - 3 of 3

Relevance scale

1 A rendezvous reservation protocol for energy constrained wireless infrastructure networks

Subalakshmi Venugopal, Wesley Chen, T. D. Todd, Krishna Sivalingam

January 2007 **Wireless Networks**, Volume 13 Issue 1

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(578.19 KB) Additional Information: full citation, abstract, references, index terms

This paper considers a low power wireless infrastructure network that uses multi-hop communications to provide end user connectivity. A generalized Rendezvous Reservation Protocol (RRP) is proposed which permits multi-hop infrastructure nodes to adapt their power consumption in a dynamic fashion. When nodes have a long-term association, power consumption can be reduced by having them periodically rendezvous for the purpose of exchanging data packets. In order to support certain applications, the ...

**Keywords**: energy efficiency, multi-hop infrastructure wireless networks, performance evaluation, rendezvous mechanism

2 Comparative performance evaluation of scatternet formation protocols for networks of bluetooth devices

Stefano Basagni, Raffaele Bruno, Gabriele Mambrini, Chiara Petrioli

March 2004 **Wireless Networks**, Volume 10 Issue 2

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(375.40 KB) Additional Information: full citation, abstract, references, citings, index terms, review

This paper describes the results of the first ns2-based comparative performance evaluation among four major solutions presented in the literature for forming multi-hop networks of Bluetooth devices (*scatternet formation*). The four protocols considered in this paper are *BlueTrees* [1], *BlueStars* [2], *BlueNet* [3] and the protocol presented in [4] which proposes geometric techniques for topology reduction combined with cluster-based scatternet formation. We implemented th ...

**Keywords**: bluetooth, performance evaluation, scatternet formation, wireless networks

3 A cone-based distributed topology-control algorithm for wireless multi-hop networks

Li Li, Joseph Y. Halpern, Paramvir Bahl, Yi-Min Wang, Roger Wattenhofer

February 2005 **IEEE/ACM Transactions on Networking (TON)**, Volume 13 Issue 1

**Publisher:** IEEE Press

Full text available: pdf(800.37 KB) Additional Information: full citation, abstract, references, citings, index terms

The topology of a wireless multi-hop network can be controlled by varying the transmission power at each node. In this paper, we give a detailed analysis of a cone-based distributed topology-control (CBTC) algorithm. This algorithm does not assume that nodes have GPS information available; rather it depends only on directional information. Roughly speaking, the basic idea of the algorithm is that a node *u* transmits with the minimum power *Pu*, α required to ens ...

**Keywords**: connectivity, localized distributed algorithm, power management, topology control

Results 1 - 3 of 3

Published before May 2005
Terms used: **discover neighbor node**

Found **336** of **170,526**

Sort results by relevance

Display results expanded form

Save results to a Binder

Search Tips

Open results in a new window

Try an Advanced Search

Try this search in The ACM Guide

Results 1 - 20 of 200 Result page: **1** 2 3 4 5 6 7 8 9 10 next

Best 200 shown

Relevance scale

**1** Comparative performance evaluation of scatternet formation protocols for networks of bluetooth devices

Stefano Basagni, Raffaele Bruno, Gabriele Mambrini, Chiara Petrioli

March 2004 **Wireless Networks**, Volume 10 Issue 2

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(375.40 KB) Additional Information: full citation, abstract, references, citings, index terms, review

This paper describes the results of the first ns2-based comparative performance evaluation among four major solutions presented in the literature for forming multi-hop networks of Bluetooth devices (*scatternet formation*). The four protocols considered in this paper are *BlueTrees* [1], *BlueStars* [2], *BlueNet* [3] and the protocol presented in [4] which proposes geometric techniques for topology reduction combined with cluster-based scatternet formation. We implemented th ...

**Keywords**: bluetooth, performance evaluation, scatternet formation, wireless networks

**2** PARO: supporting dynamic power controlled routing in wireless ad hoc networks

Javier Gomez, Andrew T. Campbell, Mahmoud Naghshineh, Chatschik Bisdikian

September 2003 **Wireless Networks**, Volume 9 Issue 5

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(311.95 KB) Additional Information: full citation, abstract, references, citings, index terms

This paper introduces PARO, a dynamic power controlled routing scheme that helps to minimize the transmission power needed to forward packets between wireless devices in ad hoc networks. Using PARO, one or more intermediate nodes called "redirectors" elects to forward packets on behalf of source-destination pairs thus reducing the aggregate transmission power consumed by wireless devices. PARO is applicable to a number of networking environments including wireless sensor networks, home networks ...

**Keywords**: ad hoc networks, power control, power optimization, routing protocols

**3** Key establishment in sensor networks: Revisiting random key pre-distribution schemes for wireless sensor networks

Joengmin Hwang, Yongdae Kim

October 2004 **Proceedings of the 2nd ACM workshop on Security of ad hoc and sensor networks SASN '04**

**Publisher:** ACM Press

Full text available: pdf(331.41 KB) Additional Information: full citation, abstract, references, citings, index terms

Key management is one of the fundamental building blocks of security services. In a network with resource constrained nodes like sensor networks, traditional key management techniques, such as public key cryptography or key distribution center (e.g., Kerberos), are often not effective. To solve this problem, several key pre-distribution schemes have been proposed for sensor networks based on random graph theory. In these schemes, a set of randomly chosen keys or secret information is pre-dist ...

**Keywords**: key pre-distribution, wireless sensor networks

4 Resource management: Asynchronous wakeup for ad hoc networks

Rong Zheng, Jennifer C. Hou, Lui Sha

June 2003 **Proceedings of the 4th ACM international symposium on Mobile ad hoc networking & computing MobiHoc '03**

**Publisher:** ACM Press

Full text available: pdf(218.13 KB) Additional Information: full citation, abstract, references, citings, index terms

Due to the slow advancement of battery technology, power management in wireless networks remains to be a critical issue. Asynchronous wakeup has the merits of not requiring global clock synchronization and being resilient to network dynamics. This paper presents a systematic approach to designing and implementing asynchronous wakeup mechanisms in ad hoc networks. The optimal wakeup schedule design can be formulated as a block design problem in combinatorics. We propose a neighbor discovery and s ...

**Keywords**: asynchronous wakeup, block design and ad hoc networks, power management

5 A bluetooth based sensor network for civil infrastructure health monitoring

Vipin Mehta, Magda El Zarki

July 2004 **Wireless Networks**, Volume 10 Issue 4

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(307.57 KB) Additional Information: full citation, abstract, references, citings, index terms

Communicating with sensors has long been limited either to wired connections or to proprietary wireless communication protocols. Using a ubiquitous and inexpensive wireless communication technology to create Sensor Area Networks (SANs) will accelerate the extensive deployment of sensor technology. Bluetooth, an emerging, worldwide standard for inexpensive, local wireless communication is a viable choice for SANs because of its inherent support for some of the important requirements-low power, sm ...

**Keywords**: bluetooth, link strength, load balancing, power consumption, scatternet, scheduling, simulated annealing, timing accuracy, topology design

6 Technical poster session 2: multimedia networking and system support: Replication of partitioned media streams in wireless ad hoc networks

Shudong Jin

October 2004 **Proceedings of the 12th annual ACM international conference on Multimedia MULTIMEDIA '04**

**Publisher:** ACM Press

Full text available: pdf(83.14 KB) Additional Information: full citation, abstract, references, index terms

Media streaming in wireless ad hoc networks is challenging due to the stringent resource restrictions and the decentralized architecture. To support long and high-quality streams, one viable approach is divide-and-conquer. A media stream is partitioned into segments, and then the segments are replicated in a network and served in a peer-to-

peer fashion. It alleviates resource requirements on light-weight devices, improves load balancing, and provides an opportunity for fine-gra ...

**Keywords**: data replication, multimedia streaming, topology

7 An optimal distributed depth-first-search algorithm

M. B. Sharma, N. K. Mandyam, S. S. Iyangar

February 1989 **Proceedings of the 17th conference on ACM Annual Computer Science Conference CSC '89**

**Publisher:** ACM Press

Full text available: pdf(359.70 KB) Additional Information: full citation, abstract, references, index terms

This paper presents a new distributed depth-first-search algorithm with communication and time complexities of O(|V|). The algorithm is shown to use 2|V|-2 messages and 2|V|-2 units of time and is shown to be optimal in time and message.

8 A cone-based distributed topology-control algorithm for wireless multi-hop networks

Li Li, Joseph Y. Halpern, Paramvir Bahl, Yi-Min Wang, Roger Wattenhofer

February 2005 **IEEE/ACM Transactions on Networking (TON)**, Volume 13 Issue 1

**Publisher:** IEEE Press

Full text available: pdf(800.37 KB) Additional Information: full citation, abstract, references, citings, index terms

The topology of a wireless multi-hop network can be controlled by varying the transmission power at each node. In this paper, we give a detailed analysis of a cone-based distributed topology-control (CBTC) algorithm. This algorithm does not assume that nodes have GPS information available; rather it depends only on directional information. Roughly speaking, the basic idea of the algorithm is that a node *u* transmits with the minimum power *Pu*, α required to ens ...

**Keywords**: connectivity, localized distributed algorithm, power management, topology control

9 Session 3B: robot architectures: PHA*: performing A* in unknown physical environments

Ariel Felner, Roni Stern, Sarit Kraus

July 2002 **Proceedings of the first international joint conference on Autonomous agents and multiagent systems: part 1 AAMAS '02**

**Publisher:** ACM Press

Full text available: pdf(213.33 KB) Additional Information: full citation, abstract, references, index terms

We address the problem of finding the shortest path between two points in an unknown real physical environment, where a traveling agent must move around in the environment to explore unknown territories. We present the Physical-A* algorithm (PHA*) to solve such a problem. PHA* is a two-level algorithm in which the upper level is A*, which chooses the next node to expand and the lower level directs the agent to that node in order to explore it. The complexity of this algorithm is measured by the ...

**Keywords**: A*, mobile agents, search, shortest path

10 Oral presentation session IV: estimation and detection: The sybil attack in sensor networks: analysis & defenses

James Newsome, Elaine Shi, Dawn Song, Adrian Perrig

April 2004 **Proceedings of the third international symposium on Information processing in sensor networks IPSN '04**

**Publisher:** ACM Press

Full text available: pdf(224.72 KB) Additional Information: full citation, abstract, references, citings, index

terms

Security is important for many sensor network applications. A particularly harmful attack against sensor and ad hoc networks is known as the Sybil attack [6], where a node illegitimately claims multiple identities. This paper systematically analyzes the threat posed by the Sybil attack to wireless sensor networks. We demonstrate that the attack can be exceedingly detrimental to many important functions of the sensor network such as routing, resource allocation, misbehavior detection, etc. We est ...

**Keywords**: security, sensor networks, sybil attack

**11** Routing: Ensuring cache freshness in on-demand ad hoc network routing protocols

Yih-Chun Hu, David B. Johnson

October 2002 **Proceedings of the second ACM international workshop on Principles of mobile computing POMC '02**

**Publisher:** ACM Press

Full text available: pdf(131.62 KB) Additional Information: full citation, abstract, references, citings, index terms

In a wireless ad hoc network, nodes cooperate to forward packets for each other over possibly multi-hop paths, to allow nodes not within direct wireless transmission range to communicate. Many routing protocols have been proposed for the ad hoc network environment, several of which operate on-demand and utilize a *route cache* listing links that this node has learned. In such protocols, aggressive caching of overheard routes can significantly improve performance; in particular, overhead can ...

**Keywords**: DSR, Dynamic Source Routing, ad hoc networks, bounded latency, epoch numbers, route cache, theory

**12** Wireless sensor networks: Impact of radio irregularity on wireless sensor networks

Gang Zhou, Tian He, Sudha Krishnamurthy, John A. Stankovic

June 2004 **Proceedings of the 2nd international conference on Mobile systems, applications, and services MobiSys '04**

**Publisher:** ACM Press

Full text available: pdf(504.42 KB) Additional Information: full citation, abstract, references, citings, index terms

In this paper, we investigate the impact of radio irregularity on the communication performance in wireless sensor networks. Radio irregularity is a common phenomenon which arises from multiple factors, such as variance in RF sending power and different path losses depending on the direction of propagation. From our experiments, we discover that the variance in received signal strength is largely random; however, it exhibits a continuous change with incremental changes in direction. With empiric ...

**Keywords**: link asymmetry, packet loss, path loss, radio irregularity, sending power, sensor networks, wireless communication

**13** Dynamic task-based anycasting in mobile ad hoc networks

Prithwish Basu, Wang Ke, Thomas D. C. Little

October 2003 **Mobile Networks and Applications**, Volume 8 Issue 5

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(518.68 KB) Additional Information: full citation, abstract, references, index terms

Mobile ad hoc networks (MANETs) have received significant attention in the recent past owing to the proliferation in the numbers of tetherless portable devices, and rapid growth in popularity of wireless networking. Most of the MANET research community has remained focused on developing lower layer mechanisms such as channel access and routing for making MANETs operational. However, little focus has been applied on higher layer issues, such as application modeling in dynamic MANET environments. ...

**Keywords**: anycasting, device/service discovery, distributed application execution, mobile ad hoc networks, task graphs

**14** Connectivity and mobility in ad hoc networks: Rapid and energy efficient neighbor discovery for spontaneous networks

S. Gallo, L. Galluccio, G. Morabito, S. Palazzo

October 2004 **Proceedings of the 7th ACM international symposium on Modeling, analysis and simulation of wireless and mobile systems MSWiM '04**

**Publisher:** ACM Press

Full text available: pdf(116.29 KB) Additional Information: full citation, abstract, references, index terms

Ad hoc networking enables novel communication paradigms which require the definition of new frameworks and parameters for *quality of service* (QoS) support. The relevant QoS requirements are frequently antagonist and thus also appropriate tradeoff have to be determined and achieved to fit all of them. As an example, consider the spontaneous networking featured by self-organizing ad hoc networks. Spontaneous networking can happen only if neighboring communication nodes discover each other w ...

**Keywords**: ad-hoc networks, energy efficiency, neighbor discovery

**15** Multi-level hierarchies for scalable ad hoc routing

Elizabeth M. Belding-Royer

September 2003 **Wireless Networks**, Volume 9 Issue 5

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(465.16 KB) Additional Information: full citation, abstract, references, citings, index terms

Ad hoc networks have the notable capability of enabling spontaneous networks. These networks are self-initializing, self-configuring, and self-maintaining, even though the underlying topology is often continually changing. Because research has only begun to scratch the surface of the potential applications of this technology, it is important to prepare for the widespread use of these networks. In anticipation of their ubiquity, the protocols designed for these networks must be scalable. This inc ...

**Keywords**: ad hoc networks, hierarchial routing, mobile networking, scalability

**16** Finding context paths for Web pages

Yoshiaki Mizuuchi, Keishi Tajima

February 1999 **Proceedings of the tenth ACM Conference on Hypertext and hypermedia : returning to our diverse roots: returning to our diverse roots HYPERTEXT '99**

**Publisher:** ACM Press

Full text available: pdf(1.23 MB) Additional Information: full citation, references, citings, index terms

**Keywords**: Web, hypertext, information discovery, query, structure discovery

**17** A representation for linear lists with movable fingers

Mark R. Brown, Robert E. Tarjan

May 1978 **Proceedings of the tenth annual ACM symposium on Theory of computing STOC '78**

**Publisher:** ACM Press

Full text available: pdf(706.38 KB) Additional Information: full citation, abstract, references, citings, index terms

This paper describes a data structure which is useful for representing linear lists when the pattern of accesses to a list exhibits a (perhaps time-varying) locality of reference. The structure has many of the properties of the representation proposed by Guibas, McCreight, Plass, and Roberts [4], but is substantially simpler and may be practical for lists of moderate size. The analysis of our structure includes a general treatment of the worst-case node splitting caused by consecutive inser ...

**18** Network Provisioning: A coverage-preserving node scheduling scheme for large wireless sensor networks

Di Tian, Nicolas D. Georganas

September 2002 **Proceedings of the 1st ACM international workshop on Wireless sensor networks and applications WSNA '02**

**Publisher:** ACM Press

Full text available: pdf(673.33 KB) Additional Information: full citation, abstract, references, citings, index terms

In wireless sensor networks that consist of a large number of low-power, short-lived, unreliable sensors, one of the main design challenges is to obtain long system lifetime, as well as maintain sufficient sensing coverage and reliability. In this paper, we propose a node-scheduling scheme, which can reduce system overall energy consumption, therefore increasing system lifetime, by turning off some redundant nodes. Our coverage-based off-duty eligibility rule and backoff-based node-scheduling sc ...

**Keywords**: coverage, node scheduling, wireless sensor networks

**19** A Five-Phase Reservation Protocol (FPRP) for Mobile Ad Hoc Networks

Chenxi Zhu, M. S. Corson

September 2001 **Wireless Networks**, Volume 7 Issue 4

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(211.39 KB) Additional Information: full citation, abstract, references, citings, index terms

A new single channel, time division multiple access (TDMA)-based broadcast scheduling protocol, termed the Five-Phase Reservation Protocol (FPRP), is presented for mobile ad hoc networks. The protocol jointly and simultaneously performs the tasks of channel access and node broadcast scheduling. The protocol allows nodes to make reservations within TDMA broadcast schedules. It employs a contention-based mechanism with which nodes compete with each other to acquire TDMA slots. The FPRP is free of ...

**Keywords**: ad hoc networks, broadcast slot assignment, graph coloring, slotted-Aloha, time-division-multiple-access

**20** AMRoute: ad hoc multicast routing protocol

Jason Xie, Rajesh R. Talpade, Anthony Mcauley, Mingyan Liu

December 2002 **Mobile Networks and Applications**, Volume 7 Issue 6

**Publisher:** Kluwer Academic Publishers

Full text available: pdf(216.21 KB) Additional Information: full citation, abstract, references, citings, index terms

The Ad hoc Multicast Routing protocol (AMRoute) presents a novel approach for robust IP Multicast in mobile ad hoc networks by exploiting user-multicast trees and dynamic logical cores. It creates a bidirectional, shared tree for data distribution using only group senders and receivers as tree nodes. Unicast tunnels are used as tree links to connect neighbors on the *user-multicast tree*. Thus, AMRoute does not need to be supported by network nodes that are not interested/capable of multica ...

**Keywords**: IP multicast, mobile ad hoc networks, network protocols, routing

Results 1 - 20 of 200 Result page: **1** 2 3 4 5 6 7 8 9 10 next